

## Coaxial Friction Clutch Actuator System

### ABSTRACT OF THE INVENTION

5 A controlled actuator system (~~300, 400, 500, 600~~) for the actuation of a friction clutch (~~20~~) comprising a screw drive assembly (~~310, 410, 510, 610~~) coaxial with an axis (~~301, 401, 501, 601~~) of the clutch (~~20~~)-composed of a collar (~~312, 412, 512, 612~~) and a screw (~~311, 411, 511, 611~~) fastened to a gearbox (~~11~~). The controlled actuator system (~~300, 400, 500, 600~~) having a friction plate (~~303, 403, 503, 603~~) rotatably fastened to control fingers (~~21~~) of the clutch (~~20~~) and coaxial with the clutch axis (~~301, 401, 501, 601~~) and a ball bearing assembly (~~320, 420, 520, 620~~) with a first race (~~322, 422, 522, 622~~) fastened to the collar (~~312, 412, 512, 612~~) and the axis of the bearing assembly (~~320, 420, 520, 620~~) being offset from the axis (~~301, 401, 501, 601~~) of the clutch (~~20~~). The collar (~~312, 412, 512, 612~~) is rotated by a motor (~~80~~). The friction plate (~~303, 403, 503, 603~~) and a second race (~~321, 421, 521, 621~~) of the bearing assembly (~~320, 420, 520, 620~~) are in frictional engagement.

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